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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,463	07/18/2003	Kyung-Mo Yu	P-0563	1141

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EXAMINER	
NGUYEN, TU X	

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/621,463	YU, KYUNG-MO	
	Examiner	Art Unit	
	Tu X. Nguyen	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☒ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 15-18 and 28, are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant admitted prior art.

Regarding claims 1 and 15, the Applicant admitted prior art discloses a synchronization detecting method of a mobile communication system, comprising:

comparing a synchronization detection threshold value set for each section of a time period in which a quality of a pilot (see Applicant admitted prior art, par.003, lines 3-4) is measured (see Applicant admitted prior art, par.005, lines 5-6, "time period N frames" corresponds to "each section of a time period", "SIR" corresponds to "quality of a signal"), and

a bit error rate calculated for each section (see Applicant admitted prior art, par.008, line 4, "block error rate" corresponds to "bit error rate"); and

judging a synchronization detection based on a result of said comparing (see Applicant admitted prior art, par.005 line 6-7).

Regarding claims 2, 5 and 17-18, the Applicant admitted prior art discloses if a pilot bit error rate calculated in a certain section of said time period is smaller than the synchronization detection threshold value set for the section, it is judged to be in synchronization status,, and if a pilot bit error rate calculated for every section of said time period is not smaller than a synchronization detection threshold value set for every section, a pilot bit error rate calculated for a first section is compared with a certain synchronization failure threshold value, and then, if the pilot bit error rate of the first section is greater than the synchronization failure threshold value, it is judged to be synchronization failure (as the Applicant admitted prior art have met all limitations of claim 1 above, "if" is an option and no need for consideration).

Regarding claim 3 and 16, the Applicant admitted prior art discloses the time period for measuring the pilot quality includes a plurality of frames (see the Applicant admitted prior art par.005, lines 5-6) or a plurality of slots.

Regarding claim 4, the Applicant admitted prior art discloses if the result of the comparison indicates the pilot bit error rate is smaller than the synchronization detection threshold value set for the section, synchronization is indicated (as the Applicant admitted prior art have met all limitations of claim 1 above, "if" is an option and no need for consideration).

Regarding claims 28, the Applicant admitted prior art discloses wherein the system is a base station (see par.002).

Claims 6-14 are19-27, are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant admitted prior art in view of Kanemotot et al. (US Pub. 2004/0013169).

Regarding claim 6, the Applicant admitted prior art discloses SIR is compared to a synchronization threshold value to a finger, for a first section (see Applicant admitted prior art, apr.002, 005); however, the Applicant admitted prior art fails to disclose a pilot bit error rate (BER) is compared to a synchronization threshold value;

compared to a synchronization threshold value to a finger (see Applicant admitted prior art, apr.002, 005), for a second section (it is considered that the detection divided through out plurality of "time period N frames"); however, the Applicant admitted prior art fails to disclose a pilot bit error rate (BER) is compared to a synchronization threshold value.

In the related art, Kanemoto et al. a pilot bit error rate (BER) is compared to a synchronization threshold value (see par.0196 lines 1-3). Therefore It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of the Applicant admitted prior art with the above teaching of Kanemoto in order to provide other technique of BER measurement which related to signal strength rather than based on SIR.

Logic configured to determined the uplink is in synchronization status if the first/second pilot BER is smaller than the first synchronization detection threshold value (as the Applicant admitted prior art have met all limitations of claim 1 above, "if" is an option and no need for consideration).

Regarding claims 19 and 26, the Applicant admitted prior art discloses SIR is compared to a synchronization threshold value to a finger, for a first section (see Applicant admitted prior art, apr.002, 005); however, the Applicant admitted prior art fails to disclose a pilot bit error rate (BER) is compared to a synchronization threshold value.

In the related art, Kanemoto et al. a pilot bit error rate (BER) is compared to a synchronization threshold value (see par.0196 lines 1-3). Therefore It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of the Applicant admitted prior art with the above teaching of Kanemoto in order to provide other technique of BER measurement which related to signal strength rather than based on SIR.

Logic configured to determined the uplink is in synchronization status if the first pilot BER is smaller than the first synchronization detection threshold value (as the Applicant admitted prior art have met all limitations of claim 1 above, "if" is an option and no need for consideration).

Regarding claims 20-21, the Applicant admitted prior art discloses SIR is compared to a synchronization threshold value to a finger (see Applicant admitted prior art, apr.002, 005), for a second section (it is considered that the detection divided through out plurality of "time period N frames"); however, the Applicant admitted prior art fails to disclose a pilot bit error rate (BER) is compared to a synchronization threshold value.

In the related art, Kanemoto et al. a pilot bit error rate (BER) is compared to a synchronization threshold value (see par.0196 lines 1-3). Therefore It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of the Applicant admitted prior art with the above teaching of Kanemoto in order to provide other technique of BER measurement which related to signal strength rather than based on SIR.

Logic configured to determined the uplink is in synchronization status if the second pilot BER is smaller than the first synchronization detection threshold value (as the Applicant admitted prior art have met all limitations of claim 1 above, "if" is an option and no need for consideration).

Regarding claims 7, the Applicant admitted prior art and Kanemoto et al. comparing the first pilot BER and a synchronization failure threshold value, if the second pilot BER is not smaller than the second synchronization detection threshold value; and judging the uplink is out of synchronization if the first pilot BER is greater than the synchronization failure threshold value (as the Applicant admitted prior art have met all limitations of claim 6 above, "if" is an option and no need for consideration).

Regarding claims 8 and 22, the Applicant admitted prior art and Kanemoto et al. disclose the first and second sections comprise frames (see admitted prior art, par.005, line 5) or slots.

Regarding claims 9-11 and 24, the Applicant admitted prior art and Kanemoto et al. disclose the first and second sections and a prescribed numbers of frames to be accumulated to the first section (see Kanemoto et al., fig.5, par.0134, the Examiner interprets a slot containing number of frames).

Regarding claim 12, the Applicant admitted prior art and Kanemoto et al. disclose a length of the section for calculating the pilot BER corresponds to the synchronization detection threshold value (see Applicant admitted art, par.005, "a certain time period" corresponds to "a length of the section").

Regarding claims 13 and 27, the Applicant admitted prior art and Kanemoto et al. disclose a length of the section for calculating the pilot BER decreases, the synchronization detection thereshold value decreases (see Applicant admitted art, par.008).

Regarding claims 14 and 25, the Applicant admitted prior art and Kanemoto et al. disclose the first synchronization detection threshold value is smaller than the second synchronization

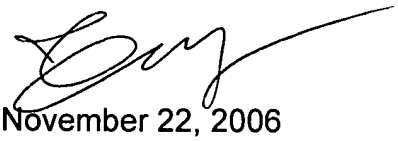
diction threshold value (see Kanemoto, fig.5, It is inherent that a first threshold value for a first period is smaller to the accumulate threshold value of the first period and the second period).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed Tu Nguyen whose telephone number is 571-272-7883.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



November 22, 2006